First Steps

UTS TRAINING TIMES

Volume 8 Issue 2 May 2012

Inside this Issue...

- The *Developmental Milestones: When It's Time to be Concerned* chart will help you discuss child development with your families. The chart will help identify areas in which their child is on target as well as areas that may need further assessment and/or intervention.
- The extensive article on Speech Development in Children with Down Syndrome discusses the use of sign language for infants and children with Down Syndrome. In April, ProKids in collaboration with Down Syndrome Indiana and the Indiana Association for the Education of Young Children, hosted Rachel Coleman, a pioneer in the use of sign language in infants and young children with and without disabilities. An estimated 500 people attended this workshop. If you missed it, you can get information on signing and an array of resources at the Signing Time website at http://www.signingtime.com/program1/
- A new feature is the Spotlight On.. Series. These articles will highlight less familiar disciplines and services that are part of IDEA, Part C. This quarter, Psychological services are presented. Special thanks to Angela Tomlin, PhD, HSPP, IMH-E (IV), Christine Raches, Psy D, HSPP and Patricia Martin-Brown, M.S., NCSP for their assistance. In future editions, we will discuss Social Work, Nutrition, Nursing and other worthwhile, but less frequently used services.
- Be sure to check out the training opportunities coming in July, August and September. Providers and families can find additional information on all sorts of training and resources at the Early Childhood Meeting Place. See page 25 for more information.

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INDIANA'S UNIFIED TRAINING SYSTEM

"Creating Learning Opportunities for Families and Providers Supporting Young Children"

First Steps Enrollment and Credential Training Requirements

Provider Level - New	Training for Enrollment	Training for Initial Credential
Service Coordinator (Intake and Ongoing) New to First Steps December 2007 and after	SC 101—SC Modules (self-study)	SC 102 within 3-6 months of employment date SC 103 within 6-9 months of employment date Quarterly (4) - Training Times Assessment (self-study) First Steps Core Training—one course per credential year (self study or on-site) 15 points for initial credential
Direct Service Provider (new to First Steps December 2007 and after)	First Steps Orientation or DSP 101—Provider Orientation Course (self-study)	DSP 102 - 1/2 day within 3-6 months of enrollment (on-site) DSP 103 - 1/2 day within 6-12 months of enrollment (on-site) Quarterly (4) - Training Times Assessment (self-study) First Steps Core Training—one course per credential year (self study or on-site) 10 or 15 points for initial credential
Provider Level - Credentialed	**Training for Enrollment**	**Training for Annual Credential**
Service Coordinator (Intake or Ongoing who has completed initial credential)	SC Orientation and Service Coordination Level 1 or SC 101 – SC Modules (self-study)	Quarterly (4) - Training Times Assessment (self-study) First Steps Core Training - one course per credential year (self study or on-site) 3 points for annual re-credential
Direct Service Provider (who has completed initial credential)	First Steps Orientation (on-site or self–study) or DSP 101 - Provider Orientation Course (self-study)	Quarterly (4) – Training Times Assessment (self-study) First Steps Core Training - one course per credential year (self study or on-site) 3 points for annual re-credential

Attention: New Providers and Service/Intake Coordinators

The Bureau of Child Development Services requires all providers and service coordinators to complete the quarterly *Training Times* assessment as part of your mandatory training requirements for credentialing.

New providers must establish an account on the UTS website (**http://www.utsprokids.org**) to register for UTS trainings. Obtaining an account is easy.

1. Click the Account Login in the upper right hand corner.
2. On the login page click on Create One Here
3. Enter your information (note that UTS Training Times is mailed to your primary address—you are encouraged to use your home address, especially if it is difficult to get personal mail at your workplace, e.g. hospital system). UTS does not give any of your training profile information to anyone outside of First Steps. The BCDS and UTS will periodically send you email updates regarding First Steps.
4. When all information has been entered click the Update Information.
5. Register for your annual training fee.
6. Once your payment has been posted, you can take the Training Times assessment, under My Quizzes.
7. If you have questions or encounter problems email Janice in the UTS Connect office at: **registration@utsprokids.org**

Indiana First Steps
UTS Training Times
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Web Address: http://www.utsprokids.org

Email: Training questions training@utsprokids.org

Registration questions: registration@utsprokids.org

Service Coordinator Training Dates for 2012

Service Coordination 102: All service coordinators must enroll and complete SC 102 3- 6 months after employment date. If you are unable to adhere to this timeline, you must request a training waiver. Email your request to training@utsprokids.org.

Tuesdays at ProKids, Inc. Indianapolis from 9-4pm
5/8/12 8/14/12

Service Coordination 103: All service coordinators must complete SC103 6-9 months after employment date. If you are unable to adhere to this timeline, you must request a training waiver. Email your request to training@utsprokids.org.

Tuesdays at ProKids, Inc. Indianapolis from 9-4pm
6/12/12 9/18/12

All Service Coordinators must register online for SC 102 and SC 103 at **www.utsprokids.org** .

DSP 102 and DSP 103 New Provider Follow Up Orientation

All newly enrolled providers must complete the DSP series 102 and 103 within the first year of their enrollment. DSP 101 is required for provider enrollment. DSP 102 must be completed three to six months following the provider enrollment date and DSP 103 must be completed six to twelve months following the provider enrollment date. Completion dates for these courses must be documented on the Annual Attestation Statement and initial credential. The training dates for DSP 102 & 103 are listed below. These trainings are held at ProKids Inc. Since there are specific timelines for completion of DSP 102 and DSP103 that allow time for experience in the First Steps System, providers may NOT take both courses on the same day. **Revisions to DSP102 and DSP103 are in development. Providers who need to only complete DSP 103 in the next 3 months should plan to attend the May 1st or June 5th session. Providers who have been enrolled for 3-6 months should wait for the revised DSP 102 and 103 courses coming in July of 2012. UTS will work with the state and CSC Provider Enrollment to develop a transition plan for providers who may exceed the current course timelines. Watch your UTS email for additional information.**

DSP 102 Dates	Time	DSP 103 Dates	Time
May 1, 2012	1:00-4:00PM	May 1, 2012	9:00-12:00PM
June 5, 2012	1:00-4:00PM	June 5, 2012	9:00-12:00PM
July 10, 2012	1:00-4:00PM	July 10, 2012	9:00-12:00PM
August 7, 2012	1:00-4:00PM	August 7, 2012	9:00-12:00PM

AEPS 2-DAY Certification Course

This course provides a 2 day, comprehensive overview of the Assessment, Evaluation and Programming System (AEPS) for Infants and Children. The AEPS is a criterion-referenced developmental assessment tool for children, birth to six years. This course is required for all ED Team members. The 2-day AEPS course may also be used as a First Steps Core Training (FSCT) for your First Steps initial or annual credential. **Cost: $75**

May 3 & 4, 2012 Aug 2 & 3, 2012

Additional Opportunities for Credential Points

Providers may utilize trainings (on-site and self-study) and conferences/workshops outside of UTS to meet their initial or annual credential points as long as the training is related to provider or service coordinator competencies and it is relevant to infants through age 5. These may include training offered at the SPOE Provider Meetings, provider agency training related to service delivery and First Steps Core Competencies, association conferences (APTA, ASHA, etc.), hospital based conferences or grand rounds, other local, regional and national conferences, and books, videos and online training. You must keep a copy of the agenda or brochure that includes date, speakers, an agenda/content information and the time spent in the sessions you attended or a one page summary of the self-study training in your credential file. **Recent changes to First Steps credentialing allow a maximum of 5 points for in-service training, while conferences/ workshop taken outside of provider agencies is unlimited.** More information on credentialing can be found in the recently revised Personnel Guide at

http://www.eikids.com/in/matrix/docs/pdfs/First_Steps_Personnel_GuideRevised_12-2010.pdf

Developmental Milestones: When It's Time

Every child is unique and develops at his/her own pace. Some children may walk by 8 months, others not for a year or a little more. Thus, you shouldn't be concerned if your child isn't exactly on par with the developmental milestones described below. Nor should you compare one child to the next; your eldest and youngest won't match milestone to milestone. However, you should be concerned if there is a lengthy delay in key milestones, such as language and sound response. If there is, it will need to be monitored closely

Age	Fine Motor Skills	Gross Motor Skills
0-3 months	Sucking, rooting and grasping	Lift head and chest when on belly, hold head up for a few seconds when supported
3-6 months	Reach, grasp and mouth objects	Roll over, pull body forward
6-9 months	Transfer objects between hands	Crawl
9 months – 1 year	Roll a ball, throw objects, grasp with thumb and pointer finger, drop and pick up objects	Sit without aid, stand, walk with assistance
1-2 years	Put things on pegs, scribble, turn pages and knobs, shift objects from hand to hand	Walk without aid, walk backwards, go up stairs with assistance, seat self in chair, move to music
2-3 years	String large beads, turn pages, hold crayon with two fingers instead of fist, make dots and lines	Run, jump, walk on tiptoe, kick objects forward
3-4 years	Mold clay or dough, build towers, place peg in hole, draw circles	Balance on one foot, walk on a line or around obstacles, ride a tricycle, use a slide
4-5 years	Use safety scissors, cut in a line, begin to print letter, copy shapes	Walk backward, jump forward and/or on one foot, climb stairs, do somersaults

to be Concerned

by you, as well as by your child's physician, who should also be watching for delays. This is why keeping up with your child's well-baby checkups and, subsequently, annual physical exams is so critical. Additionally, child care workers and teachers, as well as other professionals, will help you keep track of your child's development. If something seems wrong, your child's interdisciplinary team, led by you, will be able to determine just what that is and how to proceed next.

Emotional/Social/Cognitive	Communication
Comforted by an adult, respond positively to touch, smiles, discriminate tastes, respond to facial expressions, prefer high contrast and geometric shapes	Communicate with crying, body movements and babbling, look at speaker, differentiate between parents' voices and others
Pay attention to name, smile spontaneously, laugh, recognize and differentiate between people, respond to familiar sound	Exchange and repeat some sounds, listen to conversation
Respond to language, express multiple emotions, differentiates strangers and friends, distinguish between inanimate and animate objects, correlate size with distance	Babble repetitively, associate simple gestures with simple words (hi/bye), use sounds and body language to express interest
Mimic actions, show anxiety when caregiver leaves, develop object permanence, respond to directions, experiment purposefully	Say a few words, respond to "no" appropriately, understand name
Recognize self in mirror/picture, show feeling for parent and others, imitate adult behavior in play, understand and respond to words, recognize difference between "you" and "me"	Understand more words and phrases, say more words clearly, as well as more words unclearly, indicate possession, from 18 months on learn 9 words per day, on average
Parallel play, assertive in opinion, help to dress and undress, increase fear/anxiety, relate actions to others	Point to object when named, join words into phrases, use modifiers (begin to), enjoy stories, respond to "what" and "where" questions
Follow directions, complete basic tasks, share toys, take turns, begin interest in make believe, organize materials, identify parts of a whole, show awareness of past and present	Be understood by strangers, use more complex grammar and words, understand relationships, follow series of directions, sing a long
Compare self to others, develop friendships, begin to develop moral reasoning, play with words, count to five, know address	Retell a story somewhat accurately, ask questions, combine thoughts into sentences, refer to causality, understand comparatives and sequence

Provider Spotlight - Psychological Services

Psychological Services in Indiana's First Steps System: Questions and Answers

Developmental delays include slow attainment of skills in any of the five main areas of development, including communication, motor, adaptive behavior, cognitive and social and emotional. Children may have delays across areas and delays in one area which can affect the attainment of progress in other areas. At times, children with delays can have associated difficult behaviors; family members can require supports to manage this behavior or their own emotional responses to the child's developmental differences. When a child and family need this kind of assistance, a First Steps psychologist may help. Below are some questions and answers about how, when and in what ways a psychologist can serve children under First Steps.

What services do psychologists provide?

Psychological Services available under First Steps may include ongoing services, testing and other assessments, consultation about child development, and parent training. In general, services are provided to eligible children and/or families when concerns are related to the child's developmental needs. Psychologists may provide services directly to the child and/or work with the family. Psychology assessment may include parent interview, child observations, interactions with the child, provider interviews, and developmental or psychological testing.

Part of psychology licensure is the ability to provide mental health and developmental diagnoses. However, the decision to diagnose or not to diagnose is multi-faceted. The psychologist will take account into the length of time the child has been receiving services, the age of the child, the families readiness or willingness to have a diagnosis, and the child's developmental level.

Who can provide psychological services in First Steps?

As with all First Steps services, psychologists must meet specific criteria and attain a First Steps Credential. Because providers can come from several different backgrounds, families may wonder who can best help them. It is important to recognize that the provider's experience with young children and specific populations of young children with developmental challenges may be more important to their competence than their initial training background or degree. For those who are new to working with young children, documented continuing education and supervision should be carefully considered when assessing the provider's competence. In Indiana, there are two types of psychology licensure: Independent Practice School Psychologists and Health Service Providers in Psychology.

Psychologists in Indiana are licensed after they earn a doctorate from a university or college in an applied area of psychology (usually school, counseling, or clinical), complete a one year internship, pass a specific licensing examination, and complete another year of supervision to earn the title "Health Service Provider in Psychology" (HSPP). HSPP psychologists are able to provide consultation to other professionals, psychotherapy and assessment, as well as make diagnoses. This license is supervised by the Indiana Professional Licensing Agency, Psychology Licensing Board.

School Psychologists with a Master's/specialist or doctoral degree can also provide services with an additional private practice endorsement (Independent Practice). The endorsement is obtained through additional clinical supervision and completion of a state licensing examination. Psychologists working under this endorsement can provide consultation, intervention, assessments and diagnose concerns that appear in the special education law. This license is overseen by the Indiana Department of Education.

When are psychology services appropriate and which family members may access them?

When considering a referral for psychology services, providers should keep in mind infant and toddler behaviors, parent behaviors, and family circumstances. In infants, mental health concerns are most often expressed as difficulty with self- regulation (sleep, feeding, emotions) or the development of healthy attachments. For toddlers, there may be additional behavioral concerns such as excessive withdrawal, regression of developmental skills, or extreme aggression.

Providers may see many children with troubling behaviors or families with difficult situations. It can be hard to know which behaviors warrant a psychology referral. A list of the kinds of concerns that may suggest the need for psychology referrals are included.

Infant (0 to 1 year) social and emotional characteristics that may signal the need for MH assessment:

Excessive Crying (colicky, cries more than 3 hours in 24 hours)	Sleep Disturbance
Feeding Disorders	Extreme Stranger Anxiety
Won't Cuddle	No or limited eye contact
No smiling	Little or no social reciprocity (enjoyment of interaction with others)
Muscular Rigidity (freezing)	Little Emotion (rarely coos or babbles)
Irritability related to mood dysregulation	Sensory sensitivity (unusual sensitivity to sight, sound, and/or touch)

Toddler (1 to 3 years) social and emotional characteristics that may signal the need for MH assessment:

No or limited eye contact	Severe temper tantrums or aggression
Continual thumb sucking	Too social to unfamiliar adults
Significant sleeping problems (night terrors, wakes numerous times, difficulty settling at bed time)	Trouble attending to play or social activities
Eating problems	Difficulty with transitions between activities
Frustration with communication	Self injurious behaviors
Inability to separate from caregiver without extreme anxiety	Tries to take care of parent
Loss of skills in any developmental area	

Parent social and emotional characteristics that may signal the need for MH assessment:

Parent looks sad and/or exceedingly tired	Parent states feeling blue and overwhelmed
Parent feels no joy regarding child	Parent has MH issues, cognitive limitations, or problems
Limited family support	

Family risk factors that, when combined with child concerns, may signal the need for MH assessment:

Drug/alcohol use in home	Multiple moves or changes in placement
Violence in home	Young parent/single parent
Chaotic or stressful home environment	Child abuse or neglect/CPS involvement
Family economic stress	Sibling issues
Low socio-economic status/poverty	Parental discord around child's developmental differences, acceptance, treatment, and family responses (nuclear and extended)

How can a Cluster locate psychologists when needed?

At this time the number of psychologists who are credentialed through Indiana First Steps is limited. To address this issue of limited providers and ensure access to services, Psychologists may be enrolled through an agency or as independent providers. If a family is working with an agency that does not have a mental health provider on staff, access to these services is still possible. Agencies will establish referral agreements with Psychologists and other disciplines with limited numbers of providers, including Social Workers. Service Coordinators, ED Team members, or Agency staff are encouraged to contact Psychologists via their Matrix page, to discuss the needs of the family and to seek assistance in arranging for referrals.

An authorization for a psychology assessment should be obtained through the Service Coordinator.. Following the assessment, a recommendation for ongoing services may be given. At that time, approval would be sought through the IFSP team, including the parent, SC ED Team and ongoing providers to add this service.

How does the psychologist collaborate with the other IFSP team members?

Like other team members, the psychologist will prepare quarterly reports and may attend IFSP meetings. Psychologists may also coordinate with other team members informally through phone calls or other appropriate communication. Team members including the ED Team members, the Service Coordinator, and the ongoing providers should feel comfortable contacting the psychologist to discuss their observations related to the child and family.

At times the psychologist may provide a one-time assessment but not become a member of the IFSP team. The psychologist may perform the assessment in one or more sessions that might occur in the family's home, the psychologist's office, or in a community setting. In most cases the psychologist will talk with ongoing team members to learn more about how the child is performing during ongoing services and to share ideas about intervention and resources. At times, psychologists may also find it helpful to refer families to community resources beyond the First Steps system.

Portions of this paper were adapted from: **Early Childhood Mental Health Services and Indiana's First Steps System,** Indiana Association for Infant & Toddler Mental Health with additional material contributed by Angela Tomlin, PhD, HSPP, IMH-E (IV), Christine Raches, Psy D, HSPP and Patricia Martin-Brown, M.S., NCSP.

Suggested citation: Indiana Association for Infant & Toddler Mental Health (2012). *Early Childhood Mental Health Services and Indiana's First Steps System*. Indianapolis, IN, IAITMH.

Infant Mental Health Endorsement

Indiana has recently added an optional credential that indicates that a person is specialized in infant mental health or social and emotional development specific to birth to three. This credential is called the Indiana Infant Mental Health Endorsement and it is granted by the Indiana Association for Infant & Toddler Mental Health through a license agreement with the Michigan Association for Infant Mental Health where it originated. Four levels are available:

Level 1-Infant Family Associate

Level 2- Infant Family Specialist

Level 3-Infant Mental Health Specialist

Level 4-Infant Mental Health Mentor

To earn this credential, a person must prepare a portfolio that shows education, continuing education, work experience, and professional ratings that document attainment of specific competencies in infant mental health appropriate to a given Level. Levels 2, 3 and 4 also require that a person have received reflective supervision; Level 3 and 4 require passing an exam. Psychologists and other mental health professionals would most likely earn Level 3 or 4, and would indicate this by adding "IMH-E-III" or "IMH-E-IV" after their other credentials.

The Indiana Association for Infant Toddler Mental Health has developed a brochure on the Infant Mental Health Endorsement. You can download a copy at http://iaitmh.org/endorsement/brochure.pdf.

Provider Progress Notes Reminders

1. The Provider Progress forms are fill-in pdf's. They can be downloaded from the state website at http://www.in.gov/fssa/ddrs/2817.htm.
2. There are forms for 1, 2, 3, or 4 outcomes. If there are more than 4 outcomes, providers are to use the additional outcomes form.
3. A MSWord version of the progress report is now available. These forms are posted at the bottom of the UTS website at http://www.utsprokids.org/firststepsinfo.asp. The MSWord version is provided for those experiencing difficulty in downloading and completing the pdf version. It may not be changed in content or format.
4. All providers must use the state provided Progress Reports. All reports are due the first of the month, as outlined in Appendix A of the directions.
5. In addition to the due dates listed, providers must also complete and send a discharge report to the SPOE. If the child is turning three and/or services will be discontinued in the next authorization period, the report can be marked for the month due and also as the discharge report.

Progress Report Due Dates

Initial IFSP meeting month:	3 month report due:	6 month report due:	9 month report due:	Annual report due:
Jan.	4/01/--	7/01/--	10/01/--	1/01/--
Feb.	5/01/--	8/01/--	11/01/--	2/01/--
Mar	6/01/--	9/01/--	12/01/--	3/01/--
April	7/01/--	10/01/--	1/01/--	4/01/--
May	8/01/--	11/01/--	2/01/--	5/01/--
June	9/01/--	12/01/--	3/01/--	6/01/--
July	10/01/--	1/01/--	4/01/--	7/01/--
Aug.	11/01/--	2/01/--	5/01/--	8/01/--
Sept.	12/01/--	3/01/--	6/01/--	9/01/--
Oct.	1/01/--	4/01/--	7/01/--	10/01/--
Nov.	2/01/--	5/01/--	8/01/--	11/01/--
Dec.	3/01/--	6/01/--	9/01/--	12/01/--

6. If a child is discharged after a progress report has been submitted, that did not also identify it as a discharge report, then the provider(s) must submit a separate discharge report within 30 days of the last visit. All children should have a discharge report completed and sent to the SPOE.
7. All progress reports are to be "team" reports. This includes all therapy providers on the child's IFSP (both agency and independents). The agency must communicate with their referring independent providers on how this will be accomplished.
8. Each provider is responsible for reviewing their STG progress information with the family at the next scheduled session after the completion of the team progress report. Ideally, the provider should give the family a copy of the progress report. The progress report review should be documented in the provider's face-to-face form.

Report Date: 4/30/12
Report Type:
- ☐ 3 Month
- ☐ 6 Month
- ☐ 9 Month
- ☑ Annual
- ☑ Discharge
- ☐ Other

IMPORTANT REMINDERS FOR ANCILLARY, NON-AGENCY, PROVIDERS

While the State requires that all DT, PT, OT and SLP on-going providers be employees of an approved provider agency, other ancillary providers are allowed to remain as independent providers, as long as they maintained referral agreements with provider agencies. These ancillary, non-agency providers include; Audiology, Social Work, Psychology, Nutrition, Nursing, Medical and Vision. **The State reminds these provider that they must:**

1. complete and submit their annual update and initial or annual credential in a timely manner. If the provider fails to submit their update or credential when it is due, state staff will notify the Provider Agencies. This will impact the provider's ability to maintain a referral agreement. Annual updates and credentials should be submitted to Provider Enrollment at least 30 days before they are due to allow time for processing. Providers with questions about their credential and forms should refer to the Personnel Guidelines (see page 3 for a direct link).
2. maintain accurate and up-to-date Matrix pages.
3. communicate and collaborate with other members of the IFSP team in order to complete and submit timely progress reports. Providers should have communication plans with each agency that they have a referral agreement with. Failure to collaborate and submit timely progress notes will negatively impact the provider's referral agreements.
4. use appropriate and billable ICD9 codes that reflect the condition and services provided. Providers should consult resources, including online sites if they are unsure of which ICD9 code to use (i.e., http://www.icd9data.com/).

Speech and Language Development for Infants/Children with Down Syndrome

By Sue Buckley and Gillian Bird

Buckley SJ, Bird G. Speech and language development for infants with Down Syndrome (0-5 years). *Down Syndrome Issues and Information*. 2001.

Adapted from online training module: http://www.down-syndrome.org/information/language/early/

Introduction

The main aim of this module is to provide practical advice and activities to improve the spoken language of children with Down Syndrome. The focus is therefore on learning to understand and to use words and sentences and on developing the sound production skills necessary to produce intelligible speech.

Since babbling and early non-verbal communication using gesture and sign, are important and influence the rate of language learning in children with Down Syndrome, sections on these are included but the emphasis in this module is on teaching vocabulary and developing sound discrimination and production. The aim is to help each child to develop a spoken vocabulary as quickly as possible and to acquire 400 words or more, used in sentences, by five to six years of age. There is evidence that this vocabulary size is necessary for the development of grammar and sentence structures and for control over speech sound production (phonology).[DSii Language Overview p.10] Signs are used with words to accelerate early word comprehension and effective communication, particularly as a bridge to the first 50 to 100 words. When a child has 50 words in his/her signed or spoken vocabulary, reading activities are encouraged to develop the production of two and three words together, early grammar and sentences.

The program of activities recommended in this module are based on:

1. research into the processes and influences on speech and language development in typically developing children
2. research into the specific speech and language needs of children with Down Syndrome
3. research into effective interventions
4. the extensive experience of the authors' and other colleagues from working with parents to provide interventions

The skills and knowledge needed for talking

For all children, learning to talk is a complex process, involving a number of emerging skills, influenced by learning opportunities and accomplished over many years. To be competent at expressing themselves through language, children have to know the words and grammar needed to express their thoughts in spoken language (language knowledge), they have to be able to make the sounds and words clearly so that their speech can be understood (speech) and they have to know how to engage someone effectively in a conversation (interactive communication skills). The reader is referred to the *Speech and Language overview* module for a full discussion of these issues and the key findings from research for both typically developing children and children with Down Syndrome.

Table 1. The skills and knowledge needed for talking

Interaction	**Spoken language knowledge**		**Speaking**
Non-verbal skills	**Vocabulary**	**Grammar**	**Speech/motor skills**
smiling, eye-contact, taking turns, initiating a conversation, maintaining the topic (pragmatics, discourse skills)	building a dictionary of single words and their meanings (lexicon and semantics)	learning the word ending rules for plurals, tenses, word order rules for questions, negatives, (morphology and syntax)	learning to make speech sounds, produce clear words with correct stress and intonation (articulation, phonology and prosody)

The principles of the program

To improve the speech and language skills of children with Down Syndrome you need to:

- Improve the quality and quantity of everyday communication with the child
- Target the skills that underpin effective communication - many of these are areas of specific difficulty for children with Down Syndrome
- Work on interactive communication, language and speech in parallel
- Record progress

The program is based on two main principles: The need to improve the quality and quantity of everyday communication with the child, and the need to target the specific skills that underpin effective communication as many of these skills are areas of particular difficulty for children with Down Syndrome.

To maximize the child's speech and language progress *both everyday communication experience and the child's underlying skills* need to be considered at all times, for babies and children with Down Syndrome.

We then stress two additional principles: The need, at all ages, to develop interactive communication, speech and language skills in parallel, and the importance of keeping records of progress.

Learning to talk is an everyday activity.

Language is learned because children want to communicate and the single most important influence on the rate of progress in typically developing children is the quality and quantity of communication that the child experiences throughout their day at home or at school.

Therefore, one approach to language intervention is to encourage everyone involved with a child with Down Syndrome at home or school or in the community, to be sensitive to the way in which they communicate with the child and to increase the amount of quality daily talk with the child during ordinary activities.

Therapy based on quality interaction

The Hanen program,[1] which teaches parents or care givers about how language is learned by most children – the stages and the processes – and aims to improve the adult's sensitivity to the child's language learning needs, is one example of this approach. Intervention programs that focus on interaction and language aim to improve the effectiveness of parents, teachers and care givers as language teachers, during all their ordinary everyday communication with the child.

Of course, many parents, teachers and care givers are excellent natural communicators and they adapt to the child's needs without any further training. However, communication is a two way activity between partners and when one partner is having difficulty, and does not give natural, age appropriate responses during the communication exchange, then it is not certain that all adults or other children will adapt to this as effectively as they could without some explicit guidance and conscious effort.

For example, if the child does not begin to point or hold up objects at the typical age, this may result in parents naming objects for the child less often, so delaying vocabulary learning. If the child does not begin to try saying words at the typical age, it may not be as easy to keep up the same level of talk to the child as it would be to the child who is talking and is demanding a response. If the child's words are unintelligible, the adult may need to ask the child to repeat the words, to be sure they understand what the child is trying to say, before they can respond. This disrupts the normal flow of conversation and the adult's ability to respond to the child's message by expanding or replying in a natural way.

All these examples indicate that when a child has even one area of delay or difficulty in her/his speech and language skills, this will almost certainly reduce the quality and quantity of natural talk to and with the child, in comparison with a typically developing child. Yet the child with difficulties needs *more* good quality language experience and learning opportunities than the typical child in order to make progress.

The first requirement for any parent, teacher or care giver using this program is that you are familiar with the stages of speech and language development in typically developing children and with what is currently understood about the processes that influence their rate of progress. In particular, you should be confident that you know what skills and style of communication will make you a good communicator. You can do this by reading the overview module in this series and other books from the recommended list at the end of this module. You can also do this by learning from your local speech and language therapy providers or from going on a course.

The second requirement is that you should then take time to consider how you are currently communicating with your baby or child with Down Syndrome and identify ways in which you could improve either your style or the quantity of communication experience that you are offering the child.

Summary of the speech and language profile of individuals with Down Syndrome

- Speech and language skills are specifically delayed relative to non-verbal abilities
- Non-verbal communication is a strength in infancy and beyond
- Use of gestures to communicate is a strength
- Vocabulary is understood slowly but steadily and becomes a strength
- Spoken production of words lags behind comprehension
- Early grammar is learned slowly and is paced by vocabulary size
- More complex grammar is specifically delayed relative to vocabulary
- Spoken production of grammar lags behind comprehension of grammar
- Difficulty with speech production – first words delayed, strings of words difficult
- Articulation and phonology are a challenge, therefore speech intelligibility is a weakness
- Teenagers and adults often still communicate with short, telegraphic sentences

The third requirement is that, as you read in the next section about the additional ways that you can help your child, you remember that they are additional; they do not conflict with any of the principles which make you a good communicator. Some require you to try to absorb them and use them in all your everyday interactions to make all your communication with your child more effective (for example, speaking clearly, reducing background noise, maintaining eye contact, using signs). Others require some time to be spent each day on extra games and teaching activities. Try to absorb some of these activities into times when you already play with your child (during changing, bathing, bedtime and mealtimes, for example). Others can be included in no more than a half hour session each day of planned playing or reading activities with your child (or two 15 minute sessions). In school the teaching games can be easily absorbed into the current program of the nursery, preschool or classroom. Fifteen minutes of planned activities *daily* really will make a difference – and be more effective than an hour once a week.

Targeting the specific profile of needs

Children with Down Syndrome usually experience considerable delay and difficulties with learning to talk. Current research, described in the accompanying speech and language overview module, identifies a common profile.

Most children and adults with Down Syndrome understand more language than their expressive language skills suggest and therefore their understanding is often underestimated. Their social interactive skills and non-verbal communication skills are a strength but speech sound production (articulation and phonology) is a specific weakness. Vocabulary learning, while delayed, is also a strength but grammar learning is a weakness, so that the children tend to talk using keywords rather than complete sentences.

Children with Down Syndrome show the same progression from one word to two word combinations, once they can say between 50-100 words, as other children, and they show the same progression to early grammar in their speech when they have a spoken vocabulary of 300-400 words. Unfortunately the usual delay in reaching a productive vocabulary of 300-400 words (at 5 to 6 years, instead of at 2 to 3 years) may compromise the ability to master fully sophisticated grammar and phonology in later speech.

Some of the reasons for the speech and language difficulties

- Learning difficulties - need more examples to learn
- Anatomical differences - affect speech skills
- Learning language from listening is affected by:
- hearing loss
- auditory discrimination
- verbal short-term memory
- Speech motor difficulties:
- delay vocabulary and grammar development
- affect the way a child is talked to and included in conversations
- Joint attention difficulties and slow development of speech will both reduce language learning opportunities

All these difficulties can be targeted with appropriate and effective intervention strategies

Progress in comprehension and production of vocabulary is probably compromised by hearing difficulties. It is certainly compromised by the children's specific difficulty with speech sound production. Progress in sentence production and in later grammar learning is probably compromised by a weakness in the auditory or phonological short-term memory system.

This profile of strengths and weaknesses identifies that any remedial program needs to aim to:

1. **Reduce the effects of hearing loss by:**
    - Regular hearing assessments and prompt, effective surgical and/or medical treatments
    - Reducing background noise, speaking clearly and maintaining eye-contact while speaking
    - Using compensating strategies in the child's communication environment which make maximum use of visual supports (signs, pictures, print)
2. **Improve articulation and phonology by:**
    - Encouraging control over oral motor skills from infancy
    - Building up sound discrimination and production skills at babble stage
    - Practicing single speech sounds from 12-18 months
    - Keeping a record of the child's speech sound skills
    - Practicing whole word and sentence production
    - Using signs and reading activities to support speech sound work
3. **Accelerate vocabulary comprehension and production by:**
    - Teaching a target vocabulary
    - Keeping a record of the child's comprehension and production of words
    - Using an augmentative communication system, usually signs, to support comprehension and production of words
    - Using reading activities to support the comprehension and production of vocabulary
4. **Accelerate mastery of grammar and sentence building by:**
    - Teaching the use of two, three and four word combinations
    - Teaching the early grammatical markers (bound morphology)
    - Teaching word order rules (syntax)
    - Teaching function word grammar (closed class grammar)
    - Keeping a record of the child's comprehension and production of grammatical markers and sentences
    - Using reading activities to support the comprehension and production of grammar and sentences
5. **Take account of the auditory short term memory weakness by:**
    - Practicing words to improve the sound traces stored
    - Playing memory games
    - Supporting learning with visual materials, pictures and print, to reduce memory requirement
6. **Capitalize on the children's good social interactive skills and develop them by:**
    - Being sensitive to all the child's attempts to communicate, by listening and responding to them
    - creating opportunities for the child to make choices and to express him/herself through language
    - Encouraging the use of gesture to communicate as it is a strength and may be important throughout life for some individuals
    - Remembering to listen and to wait to give the child a chance to organize their contribution to the conversation
    - Using styles of conversation that encourage the child to expand on and develop their contribution
    - Providing as many social opportunities for the child to be able to communicate with and learn from other non-language delayed children and adults in ordinary classes, clubs and social activities as possible

Working on speech, language and communication skills in parallel

Whenever we communicate we are using all these skills, right from infancy, therefore at any age an effective speech and language therapy program needs to consider the child's strengths and weaknesses in communication, language knowledge and in speech. The program should then work on each aspect as necessary, in parallel, rather than concen-

trate on language learning and neglect speech, for example.

We believe that it is important to keep records of the child's progress as this:

1. Encourages careful observation and an accurate knowledge of the stage the child has reached in each area of development
2. Provides a record of progress and achievements
3. Provides a guide to the next skill or step forward that is to be expected, allowing you to choose the next activity to focus on with confidence that your child should be ready to move towards it
4. Ensures that the child's skills are not underestimated
5. Keeps parents and teachers on task and motivated

We do not wish to impose too much extra work for families, teachers and care givers but the evidence does suggest that speech and language skills need additional targeted help and that most children and adults with Down Syndrome could be talking more and talking more clearly if we take relatively simple but planned steps to help them.

Learning to talk is the most important thing that children do. It is central to all other aspects of their development. It is critically important for social and emotional development and for the development of cognitive or mental abilities, so progress with learning to talk will benefit every other aspect of a child's life.

Remember we are all experts at language

When we analyze how we learn to talk and break it down into interactive skills, sounds, words and grammar, we make it seem complicated. We hope that the detail does help you to understand all the skills that your child is mastering step by step – but do remember that you are a competent talker and communicator and that you do use all the grammar described and the speech sounds, naturally. When some of the ideas seem difficult, just think about how you talk and you will see how you use tenses, prepositions and pronouns and auxiliary verbs, for example, without usually having to think about them.

Getting started

The activities are set out for each area of development starting with interactive communication skills, gesture and sign, then speech, vocabulary and grammar. In each area, activities are recommended in developmental order, so remember to identify your child's achievements in each area and choose activities to help her/him to progress in each area. It is important to recognize that the checklists cover at least five years of development. You do not need to read the whole of the module and take in all the advice and ideas at once. Start by completing the checklists and reading the sections that will provide activities for the next steps, based on your child's current level of progress.

Interactive communication

Interactive communication skills are usually a strength for children and adults with Down Syndrome. Most children and adults want to communicate and to participate in social situations. They use and understand the non-verbal communication skills that everyone uses including eye-contact, smiling, facial expressions and gesture to communicate and to support spoken communication, right from infancy. They also use both verbal and non-verbal skills for the same range of communicative functions as everyone else, even though they may not be able to express themselves as fluently in speech as their non-disabled peers.

Interactive communication skills include all the non-verbal skills identified, which are used from the first year of life, and they include the conversational skills that develop later as children become competent talkers, such as telling stories and initiating conversations with visitors.

In infancy, it is important to encourage all forms of communication because early non-verbal skills, including gestures, lead to spoken language and also because children with Down Syndrome may rely on non-verbal skills for longer than other children.

Developing early communication skills – some hints for parents and care givers of babies

Encouraging eye-contact, smiling, singing, babbling, using appropriate facial expression and talking to babies from the first month of life will help to develop early communication skills. Respond to your baby's feelings or emotional states as you would for any other baby, but be aware that your baby may not have such loud or clear communication, so do try to attribute meaning to their movements or efforts, even when you are not really sure what he/she is trying to express. Show your enjoyment of playing with him/her, encouraging your baby to watch and listen and enjoy interacting with you.

Follow your baby's lead as much as possible and talk about what the baby is doing, looking at or playing with. Give your baby time to organize her/his response, as babies with Down Syndrome may take a little longer to react than typi-

cally developing babies. At first, your baby will look at you and other faces as the main source of interest and entertainment, and then later in the first year of life will show interest in other visual, auditory and moving things – this is the stage when joint attention becomes possible and you can name what the baby is looking at or doing.

Table 2. Typical production milestones for children with Down Syndrome

Age	Interaction	Vocabulary	Grammar	Speech
0-12 months	Crying Eye-contact Smiling Listening/looking Vocalizing - coos Turn taking	Understanding words		Babble Babble tuned to native language
12-24 months	Joint attention Gestures Conveying an increasing number of meanings in gestures and some words	Beginning to sign Beginning to say Words First 10 words		Initial consonants and vowels developing as single sounds
24-36 months	Initiating conversations - pointing, requesting	First 30 words Comprehension ahead of production	Two words together	Words not very clear/intelligible
36-60 months	Repairing conversations when not understood - by trying again	First 100 words Rate of word learning increases At 5 years about 300 words	Two and three key words together Early grammar begins	Consonant, vowel and word production improve in accuracy
5-7 years	Learning to tell short narratives	Vocabulary learning continues to accelerate At 7 years about 400 words	'telegraphic' sentences - keywords Increasingly correct short sentences	Consonant and vowel production continue to improve in accuracy
7-16 years	Taking part in longer topic related conversations Requesting clarifications using - What?, Where Telling stories Developing social use of language further - social small talk Taking account of listener's knowledge knowing how to provide appropriate amounts of information for person or social situation Giving longer explanations or instructions Telling jokes Recounting experiences	More new words are learned each year Typical vocabulary size of older children and teenagers not known	Correct syntax being mastered slowly More difficult prepositions… 'above', 'below', conjunctions – 'and', 'then', 'because', comparatives - 'longer than' Grammar steadily extended to include passives in comprehension Many of these features are learned and used in reading and writing and then in speaking	Blends improve Speech becomes steadily more intelligible Speech rate and speech clarity continue to improve, influenced by reading

Games to encourage attention - listening and looking

Looking and listening are very important skills, which are needed for learning to understand and use language, and should therefore be encouraged.

Games to encourage looking

- Attract your baby's attention by clapping your hands, calling her/his name or shaking a rattle, and then praise the baby when he/she looks at you. Once you have your baby's attention, try and hold it for as long as possible by talking, babbling, (playing with sounds), smiling, pulling faces and praising the baby as he/she responds. If your baby begins to copy your facial movements or sounds keep encouraging her/him. Feeding and bathing are good times for gaining and maintaining eye contact with your baby. Hang bright objects or mobiles over your baby's cot and encourage her/him to look at them by shaking them. Then put them near enough so if the baby moves a hand he/she will touch them and move them.
- Gain your baby's attention by holding a brightly colored object in front of her/him, then move it slowly to one side and encourage the baby to follow it with her/his eye gaze. Move objects away from the baby and see if he/she grabs for them.
- Toys that produce sounds or movement are interesting for infants. Using, for example, a 'jack in the ball', or 'jack in the box', encourage the child to look at the box or the ball then hold his attention for a few seconds, press the button and the 'jack pops up' (a good intrinsic reward). A baby mat on the floor with mirrors, rattles and toys attached may encourage your baby to attend and to begin to explore toys for her/himself.
- Play 'peek-a-boo' and 'round and round the garden' games to help gain attention and eye contact.

Everyday sounds game

Collect suitable pictures, place the cards face down, make the sound and ask the child to turn the card, saying "What makes this sound? Brrrm.. Brrrm... It's a bus! Let's make a bus sound." End with the balloon card, saying "It's a balloon and the balloon goes Pop!" as you and the child/children clap hands. (The children enjoy waiting for the balloon pop).

In addition to encouraging eye contact and communication, these games will increase your baby's attention span. This is important, as your baby needs to be able to attend and concentrate for increasingly long periods of time in order to learn, as he/she gets older. In our experience, this is a problem for some children with Down Syndrome, who find it difficult to sit still and attend. We find that children who have been played with from infancy, and expected to attend to games and to books for example, have longer attention spans and are better able to cooperate in learning situations at two or three years of age and later, in the classroom.

Games to encourage listening

A variety of games can be played to encourage listening and sound discrimination. Give your baby a rattle to shake, join in with your own rattle and when the baby shakes her/his, you shake yours, stop when the baby stops and then start again when he/she does. You could try this the other way round. You start by shaking the rattle and see if your baby joins in. If he/she does, then continue rattling then stop and see if he/she stops. Use different noise makers to attract your baby's attention, squeaky toys or perhaps your own home made ones, e.g. rice or dried peas in different containers. Move the noise makers away and see if the baby reaches for them. Move them slightly to one side and see if the baby follows with her/his eyes. Show your baby a noise maker, shake it then hide it under a rug or in a box still shaking it and see if he/she looks for it. See if your baby turns her/his head as you move the sound maker away to one side.

Draw your baby's attention particularly to household noises, e.g., a clock ticking, a spoon stirring in a cup, running tap water, telephone ringing, kettle boiling, etc. Show the baby what is making the noise, talk about it, and tell her/him what it is. When your baby can sit, independently or supported, a good game for looking and listening is pushing a ball between yourself and your child. Before you push it to her/him, call your baby's name and show her/him the ball, telling the baby what it is. Then as the baby looks at you push the ball to her/him. Gain the baby's attention before he/she pushes the ball back to you if possible.

Joint attention – looking and listening together

Joint attention is important for language learning. Joint attention is when the infant and care giver are attending to the same object or activity. In this situation the care giver tends to talk about what they are both attending to. This helps the infant to '**see what you mean**' and encourages comprehension of words and sentences. Children who experience more joint attention episodes learn language faster

As well as sharing attention together, looking at and engaging each other, encourage joint attention sessions (where you and your baby both look and listen to the same things, like a rattle, or food, or toy, a person or a picture) and try to keep the baby's attention on task to build up the length of time he/she can attend to an activity with interest or enjoyment.

As you play and interact with your baby, your baby's ability to attend, by listening and looking, increases, as does his/her ability to be flexible in redirecting attention from one thing to another. These skills also develop as your baby manipulates or makes things happen in his/her environment, with early toys or people.

Your baby needs to learn to attend to things long enough to learn from the situation, toy or activity, but not for so long that he/she misses opportunities for learning about all of the other things and people around her/him. Sharing attention and joint attention will develop the attending skills the baby needs for learning and communicating. The parent with a baby who is easily distracted can help him/her to look and listen for a little longer, and a parent with a baby that attends to one thing for rather too long (e.g., looking at or playing with own feet) can help him/her to enjoy and attend to a wider range of activities. It is doing these things together that helps to develop communication skills.

Developing intentional communication

Intentional communication

1. **Draws attention to self, events, objects or people** by vocalizing and looking, coming close and leaning, tugging and pulling
2. **Requests objects, actions, information or recurrence of actions** by reaching, putting your hand on item, by extended reach with open palm, gestures such as arms up to ask to be lifted up
3. **Greeting** by hand out on vocalizing, coming and hugging, waving bye-bye
4. **Protests and rejects** by crying, pushing, stiffening, throwing, gesture
5. **Gives information** by pointing, showing, giving, taking you to show you what has happened
6. **Responds to Yes/No response** by vocalizing, head nod for 'yes', head shake for 'no', by gesture.

As babies use their skills and understand how their behaviors affect others (by the responses that parents give) they learn to communicate their needs in increasingly specific and effective ways. They communicate by looking, crying, moving parts of their bodies, picking things up, and these develop into gestures, such as offering things, holding out their hand to request something, while also looking, either at you or at the thing or action they want. Then gestures become words as children learn to talk. For children learning to sign, gestures will become signs that enable them to communicate more clearly for a wide range of words, before they are able to say the words.

Understanding how to communicate underpins effective speech and language development and developing intentional communication skills provides the foundation for learning to talk.

Children begin to tell others what to do, using gestures that attract the attention of adults and redirects it towards objects or things they want. They also begin to share aspects of their experiences with adults, with mutual eye-to-eye contact and smiling, or by drawing the adult's attention to something by looking or pointing. Some of the types of things that young children communicate about are listed in the box (right).

The interactive communication skills checklist will enable you to record which of these intentions your child has and whether they use only early communicative behaviors (e.g., crying, laughing, looking), whether they also use gestures (e.g., moving their bodies, hands, arms, mouth in particular ways, shaking their head, pointing) or also say words (using simple sign and/or speech).

Gestures

As children begin to use more gestures, signs and sounds to communicate successfully, and learn that it is easier and more accurate to convey their needs or wishes using gestures, signs and early words, these will take over from earlier communicative behaviors. As they learn more words (or signs) these will replace the use of some gestures. Sometimes children use negative behaviors to communicate their needs, such as – moving away, throwing a tantrum or even just smiling. These will be replaced by more positive, communicative behaviors if children are shown or taught these more sophisticated skills, by seeing how others use them and copying them, and finally using them spontaneously to communicate their needs.

The development of communication skills is a gradual progression for all children, and your child can be helped along this developmental pathway – her/his communication skills are not unfolding in a predetermined way on a predetermined timescale, but are influenced by her/his interactions with others.

Learning to choose and point

Stages of language development

1. Gestures
2. Single words
3. Two words together
4. Longer keyword utterances
5. Grammar – word endings and word order
6. Grammar – function grammar
7. Complete sentences

Your child will learn how to become an intentional communicator with gestures by having these shown to him/her as you communicate together, as well as by the responses that you give to their efforts to communicate with you. Your child will also learn that he/she can have control over some aspects of daily life by being shown how to choose with encouragement to point, as well as to take items. Offer a choice of two items, for example, toys, activities, or foods, before starting an activity or meal. You will be able to judge from your child's response (look at, reach, push one away, hold in hand, indicate or touch with hand, point at) which one he/she prefers and this will motivate the child to use and develop his/her communication skills. If you can't judge a preference by the way the child looks or behaves, just choose the item he/she is actually looking towards at a moment in time and 'pretend' the child has chosen it, as this will help to develop his/her intentional communication skills. Looking at pictures and the reading of picture books together can also encourage pointing.

Imitating

Your child will learn by copying or imitating your actions, sounds or words. This takes time and your baby will watch an action or a sound at first, maybe for several weeks, before he/she imitates it. Be patient and keep up the games – you will be rewarded and thrilled when your baby begins to copy sounds, then actions and then words. Once your baby begins to actively imitate, he/she has taken a significant step forward in learning. Singing and action games are often the first stimulus to join in – starting with repeating actions such as 'clap hands' or 'peek-a-boo' – and then copying the words. One factor helping children to learn from these games may be the amount of repetition they experience, often playing the game everyday, several times a day. The same amount of repetition may be needed to learn ordinary words, which is why games to teach vocabulary are necessary to help children with Down Syndrome.

Signing

The benefits of using signs as a bridge to talking

- Children with Down Syndrome are good at using gestures before they can talk
- Their first words are specifically delayed even when they understand early vocabulary
- Being able to sign allows them to communicate effectively and reduces frustration at this stage
- Parents who sign can engage in more effective language teaching and communication with their children
- Signs help children to understand and learn words - research shows that speech alone is not enough to teach new words
- Signs help children to be understood while their speech is still difficult to understand
- Children with Down Syndrome have larger vocabularies when they have been in sign supported programs
- Signs are a bridge to speaking and should be needed less as children learn to talk
- Speech sound work should be focused on from infancy alongside the use of signs
- The focus should always be on learning to say words, with signs used as an aid
- By school age signs should only be used as necessary and speaking should be the focus for daily communication

It is important to use natural gestures with babies with Down Syndrome from birth and to learn to use specific signs with words from 7 to 8 months of age. Gestures hold the baby's attention and help them to understand what is being said. It is important to understand that signs are to be used as a bridge to support the development of spoken language. The research evidence shows that children with Down Syndrome do not learn words easily from speech input on its own and that those who have been in sign supported therapy programs have bigger spoken vocabularies at 5 years.

Table 3. How communication progresses from gesture to words			
Type of communication	**Early skills e.g. crying, laughing, whole body posture, looking etc**	**Early skills and gesture e.g. looking and eye contact, moving head or arms, showing, giving, pointing etc**	**Early skills, gesture and use of words to communicate (signed or spoken)**
Draws attention to self or others	e.g. crying, vocalizing and looking, (or sometimes behaviors like throwing, banging), moving close to someone	+ social games, like blowing raspberries, hide and seek with head or eyes	+ signing and/or saying e.g. "me", or child's name;(overlap with requests e.g. "me go", "my turn")
Draws attention to or comments about things	e.g. looks at or holds	+ showing, pointing at toys, pictures, activities, for you to share, acknowledge or talk about	+ name of item plus point, "look" or "what's that?"
Requests things	e.g. reaching for, holding, looking at, putting your hand towards	+ pointing, showing (as in box above) but also wanting things to be given or to happen, child may demonstrate the activity, e.g. arms up to be lifted, moving body or arms with excitements for an activity to be repeated, smacking lips to ask for more	+ signing and/or saying objects or activities name or description, e.g. "drink", "teddy", "up", "more", "again", "get it", "help"
Protests and rejects	e.g. crying, turning face away, pushing away, stiffening, throwing, refusal	+ head gesture for 'no'	+ signing or saying 'no'
Giving information	e.g. looking, crying, taking you to show you what has happened	+ pointing, showing, giving objects	+ signing or talking about things and events, remembering about things that have happened
Expressing feelings	e.g. by crying, smiling, laughing, wriggling, screaming	+ clapping, gesture for cuddle, smacking lips to indicate something tastes good, exaggerated face for dislike	+ signs and words, call mum/dad for cuddle, "go", "no like"
Absence	e.g. crying, looking for	+ shrugging to indicate 'all gone' or 'where did it go', pointing or taking to place something usually is or was previously	+ saying signs and words 'all gone', 'gone' or 'ball gone'
Greeting	e.g. looking, smiling	+ holds out arms, gestures hello, waving bye-bye	+ saying words 'hello' and 'bye'
Responds to yes/no response	e.g. by vocalizing, crying	+ head nod 'yes', by gesture, head shake 'no'	+ saying words

All babies use signs such as pointing and waving, before they use words, so that in using more specific signs, we are extending a natural stage of development rather than introducing something that is not seen in typical development. Almost all children with Down Syndrome will use spoken language as their main means of communication from 3 or 4 years onwards. The signs used to help them are keyword signs to support the learning of words. Signs are not being taught as a sign language, to be used instead of a spoken language, as might be the case for a deaf child. In particular, signs help children with Down Syndrome to communicate effectively and show that they understand words at the stage when they cannot yet produce the sounds due to difficulties with speech production skills. This overcomes frustration and, most importantly, allows their comprehension of new words and therefore their cognitive (mental) development to proceed at a faster rate than if we waited for spoken words.

Practitioners have advocated the use of augmentative signing with babies with Down Syndrome since the early 1980s and evidence for its effectiveness in accelerating both comprehension and production of language has accumulated steadily.

Signing can help babies and children to understand words in a number of ways. If parents sign as they speak:

- they make sure the baby is looking
- the sign holds the baby's attention
- the sign gives an added clue to the meaning of the words
- parents are also likely to stress the words they are signing and speak at a slower rate

In other words, signing may help to structure more effective language learning situations. For infants, signing can increase their productive vocabularies as they can usually sign words before being able to say them - they know what they want to say but cannot yet produce the words.

At this stage, signing increases effective communication, and this enables language learning to continue at a greater rate until spoken language develops. Signing will reduce frustration and increase communication opportunities. However, it is essential to keep up activities to encourage sound and speech production alongside the use of signing, if children are to move into using spoken words as early as possible. In our experience, most children are able to drop the use of sign slowly from around four to five years of age, although they should not be discouraged from using sign at any age as a repair strategy when their speech is not understood and they will continue to benefit from the use of sign to teach new words and sentence structures.

How to begin to use signs – advice for parents

Remember that signs are being used as a natural support for your spoken words. If signs are used like gestures (and indeed many of them are just that) then they can explain to the baby what is being said or taught, and they are a means for the baby to tell you that he/she has understood or to ask for what he/she wants.

A very simple example of teaching gesture happens in every family when a parent is helping their child to say "goodbye." The parent takes the child's hand and, while waving it, says "wave bye-bye." The parent also imitates the action and 'waves bye-bye' as he/she says "bye-bye". Gradually the child copies and uses the action and in time says "bye-bye" too. There is never any thought that using the gesture first will stop the words from coming, or that it looks unnatural.

Signs are used in exactly the same way with children with Down Syndrome, many of whom are not going to find the skills of speech easy, and therefore may need signs for longer – but success in communicating with sign encourages all children to try the words.

What are these signs, and how do we use them?

If you think of signs as an extension of the ordinary sort of gestures that you use every day, then you will not go far wrong. If you remember that you are signing to explain what your child is seeing in her/his little world, then you won't ask too much of either yourself or your child. As a baby, he/she will not need the ways of the whole world explained, such as the difference between a rhinoceros or a hippopotamus, but only the ways of her/his world. For example, your baby will want to be asked if he/she is thirsty, to be shown where the toys are, to know that he/she is going to have a bath, and that you are going to put socks on her/his feet. Your baby will love to point out the light to you and to listen when Grandma is on the phone. He/she may wish to watch the video, or eat an apple or banana, and your baby would like to tell you her/his choice (without having to scream in annoyance when you give her/him the wrong one!). Your baby will want to know when the other members of the family are coming home, and which of them is expected. Your baby will want a name for her/his favorite toy (even if it is a piece of blanket or a rather bedraggled toy!).

If you make sure that your baby can see what you are talking about, and that he/she does not have things just happen to her/him, if you point out where your baby's toy is on the floor before naming it and he/she is looking at it, then you will be doing a great deal to help the baby to learn. By adding the extra simple gestures/signs to explain daily life, then

you are helping your baby even more.

Simple signing means:

- holding your hands out to show your baby that you are going to pick her/him up
- pointing to the light, and showing your baby how the light goes on, when he/she is looking at it.
- pretending to drink before you give her/him a drink so your baby knows what is coming.
- showing your baby a simple sign for 'cat' or 'dog' so that he/she can learn the name of the family pet.
- putting your hand to your ear when the phone rings so that your baby learns how to listen to it and its name.
- holding up your baby's sock and saying its name as you put it on so that he/she learns its name.
- putting your finger on your baby's nose, then your nose and asking your baby to do the same, as you say "nose".

These examples show that signing is about doing what you are doing already, but remembering that you are going to show your baby what is happening a bit more. By signing you are helping your baby to learn to watch for clues to the meaning of things in her/his world as well as to listen. As your baby learns to look to you for clues to her/his world, and to use signs, you will want to give your baby more information, and will therefore need to learn some more signs.

One of the most rewarding events is when your child can tell you that he/she not only understands what is going on, but can make her/his own comment about it. If your baby can use a sign to do so then the learning of the whole process of language has taken a great step forward. If you sign with your baby with Down Syndrome then he/she will probably reach this point many months earlier than he/she could have done if relying on you understanding his speech.

Signs should always be used with natural speech, they are there to explain what you are saying and should never be used as an alternative to speech.

If they are used in this way, then they can be used as you would use any gesture, as naturally as possible. You don't want to have to think about how you are going to find the right gestures to explain your baby's world to her/him. There are books and courses to help you to learn signs, but you should choose signs based on what you think your child needs, and what you can use comfortably in your busy life. Having to stop and think how to 'talk' to your baby is difficult and could distort the natural way you talk to your baby. Choose a few signs at a time to use in your everyday communications to start with and add more as you feel at ease with signing. The book *See and Say* by Patricia Le Prevost[2] contains 150 signs and this is enough for early use. Other sign resources are listed at the end of the module.

Early signs to use when talking to your baby

The first signs will support the things that you want to say to your child such as "hello", "up you come", "give me", "bye-bye", "all gone", "off we go", "what's that/this?", "do you want some more?", "look at (this)", "wait a minute", "where is it?", "(baby) do it", "good (boy/girl)", "put it there", "we're going to wash your (hands, face…)", and "night-night".

The next signs will be words that you are teaching your child to understand and say based on the vocabulary checklists such as "Mummy", "Daddy", "drink", "cup", "eat", "food", "biscuit", "crisp", "spoon", "bed", "car", "teddy", "home", "light", "telephone", "toys", "play", "no", "please", "I", "you", "we", "boy", and "girl".

In the authors' experience, most children with Down Syndrome will not need to learn more than 50 to 100 signs before they are moving on to using words as their main means of communication. As they can begin to say a word, they usually drop the sign for that word and use the spoken word. This should be encouraged, as the spoken word will only become clearer with practice. However, sign can still support the learning of new vocabulary, as we know this will speed up learning to understand and use the new words.

Children will join signs together at the 'two-word' stage of language development and this is fine, but they should be encouraged to practice saying the words and reading the words. If children are still entirely dependent on signs when trying to put 2 and 3 words together, then their speech sound skills should be reviewed as they may be in need of extra help with speech sound production.

The use of sign at four years and older

By four years of age, the amount of signing a child needs will need to be judged on an individual basis. Some children will be moving to use speech confidently as their main mode of communication, others will still be dependent on signs and should be taught new signs. The critical issue will be the child's speech sound skills and spoken language, those with better sound production skills will be talking and those with more sound production difficulties and restricted vocabulary will need more signs. A speech and language therapist will be able to advise, but it is essential to take a careful look at the use of signing for each child. Speech is difficult for children with Down Syndrome and their speech will only be-

become clearer if they practice speaking. Few children with Down Syndrome require a signing environment, where all spoken language is supported by signing, in the long term.

Used appropriately, with individual planning, signs continue to be an important aid at school age. Many individual case examples from parents and practitioners indicate that signing often helps the school age child with Down Syndrome to find the word they want and to speak more clearly. Signs for sounds can help production of initial and end sounds in words and signs for grammatical markers can help to teach grammar.

However, it is essential that speaking is encouraged as the main mode of communication by four years of age and that every child is working on speech sounds. In our view, it is not appropriate to send every classroom assistant on a signing course because a child with Down Syndrome is coming to the preschool or school. Some children will be reading and talking and these should be the main modes of communication and they should be used to continue to promote their speech and language development. Other children will still be very dependent on sign and someone confident with an early signing vocabulary should support communication with them.

In summary, all children with Down Syndrome benefit from the use of up to 100 signs, always used with the spoken words, to establish an early spoken vocabulary, but speech sound work must continue alongside the use of signs. The amount of signing that it is appropriate to use once a child understands and uses 100 or more words/signs needs to be judged on an individual basis. Signs used to support new words, sentences, sounds and grammar can help every child. In the authors' view, most children with Down Syndrome should be encouraged to speak as their main mode of communication from four years of age, with reading as the main support system for learning new words and practicing words and sentences. Too much use of unplanned signing when it is no longer necessary may hold back clear speech. However, a significant minority of four year olds (perhaps 25%) and older children will still need to use signs as their main mode of communication and should be taught new signs, alongside speech and reading work.

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10. Schwartz, S. and Heller Miller, J. E. (1996). *The new language of toys - Teaching communication skills to special needs children*. Bethesda, MD, USA: Woodbine House.
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12. Manolson, A. (1992). *It takes two to talk*. Toronto, Canada: The Hanen Centre.

Read the full online module at http://www.down-syndrome.org/information/language/early/

Training Opportunities

FSCT Approved!

Plan to attend the

8th Annual ITSI Institute

August 14 & 15, 2012

Ft. Benjamin Harrison, Indianapolis, IN

Keynotes: **Joye Newman**, co-author of *Growing an In-Sync Child* and **Ron Lally** from West Ed Program for Infants and Toddlers

http://www.cfs.purdue.edu/itsi/

Follow ITSI on Facebook at:

https://www.facebook.com/?ref=home#!/pages/ITSI-Infant-Toddler-Specialists-of-Indiana/209585139967?sk=info

SAVE THE DATE

All ABOUT SYNDROMES:

Congenital Complications: Discussions on Selected Genetic Disorders and Physical Differences Affecting Early Development

July 20, 2012

8:30am-3:45pm

Marten House - Indianapolis, IN

Bill Beechler, M.D., Riley Child Development Center

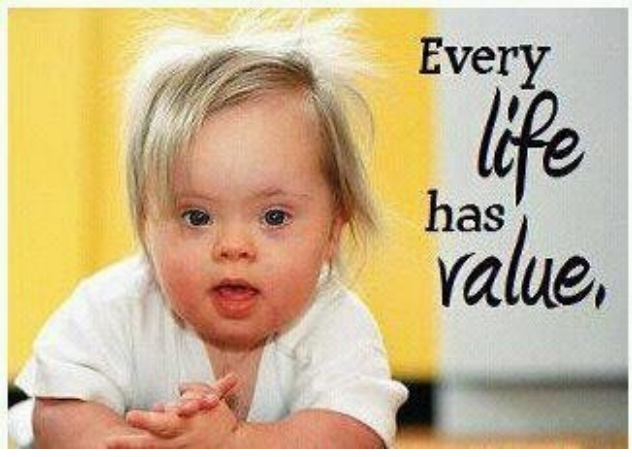
Morning Session Objectives:

1. Participants will better understand the differences between disorders with genetic vs non-genetic etiologies.
2. Participants will better appreciate the immediate and long-term implications of differences in neuroanatomy such as hydrocephaly, microcephaly, holoprosencephaly, and PVL.
3. Participants will have a more complete understanding of abnormalities which affect skeletal development.
4. Participants will be more familiar with the etiologies and implications of genetic disorders such as Prader-Willi, Williams Syndrome, and Angelman Syndrome.

Afternoon session focus on therapy and strategies

Panelists: Barb Blain OT, Laura Ray PT, Krista Elston SLP, Jill Sanders DT

$75 fee, includes lunch



Family information & Resources—Early Childhood Meeting Place

Resources for Families and First Steps Providers

http://www.earlychildhoodmeetingplace.org

The Early Childhood Center developed the Early Childhood Meeting Place website and has hosted it since 1998. Now, the Family Information and Resources section has been updated and improved.

The changes create greater value for families with young children. Families asking for one service, such as help with getting therapy for their children, may have other unmet needs. These pages are an important online resource for finding local services and supports, such as early intervention or food banks, and services offered by Indiana FSSA, DOE, and the Community Action Programs.

Now a marketing campaign is underway to make sure that families, and the providers who support them, are aware of this online resource. An information card is being distributed around the state with nearly 11,000 cards requested so far. The card has the Meeting Place web address and lists the resource categories in English and Spanish. **If you are a provider**, contact us for cards to use when families ask for help in locating services. We look forward to hearing from you. Contact Darra Ellis at 800-825-4733 or at dmellis@indiana.edu with the number you would like and where they should be shipped. If you know of any services, information products, or resources which should be included, contact Alice Cross at afcross@indiana.edu or (812)855-6508.

In addition, we could use any materials written in Spanish to increase the resources in the Información y recursos para familias section.

New Case Management System Development Is Underway

A new FSSA project kicked off in March that seeks to improve coordination of care across Indiana's Disability and Aging programs. During the last year, many Division of Disability & Rehabilitative Service (DDRS), Division of Aging (DA), Division of Mental Health and Addiction (DMHA) and Office of Medicaid Policy and Planning (OMPP) staff have invested a great deal of time and effort working on the Integrated Case Management System (ICMS) Requirements Completion Project to envision a new case management system that would serve Indiana's Disability and Aging programs.

The requirements for the system are complete and a vendor and software application have been chosen. During the next two years, in two phases, the ICMS will be developed and implemented statewide to replace IT systems used by DDRS and DA, as well as the CA-PRTF for Children program within DMHA. The ICMS will be designed to address problems including inconsistent data across Divisions, labor-intensive reporting, and the inability to see the whole picture of a client, across programs.

When implemented, the ICMS will enable improved coordination of care across Divisions to prevent duplication of services and simplify consumers' interactions with FSSA. Key staff from each Division/Program will be involved in sessions to design and review the new case management system, as it is being developed. As more details are available, updates will be provided through this communication, in regularly-scheduled meetings, and in a planned ICMS e-newsletter (to be launched this summer). Stay tuned for more information!

The TT Self-Assessment is due
11:59pm EDT, July 31, 2012

http://www.utsprokids.org